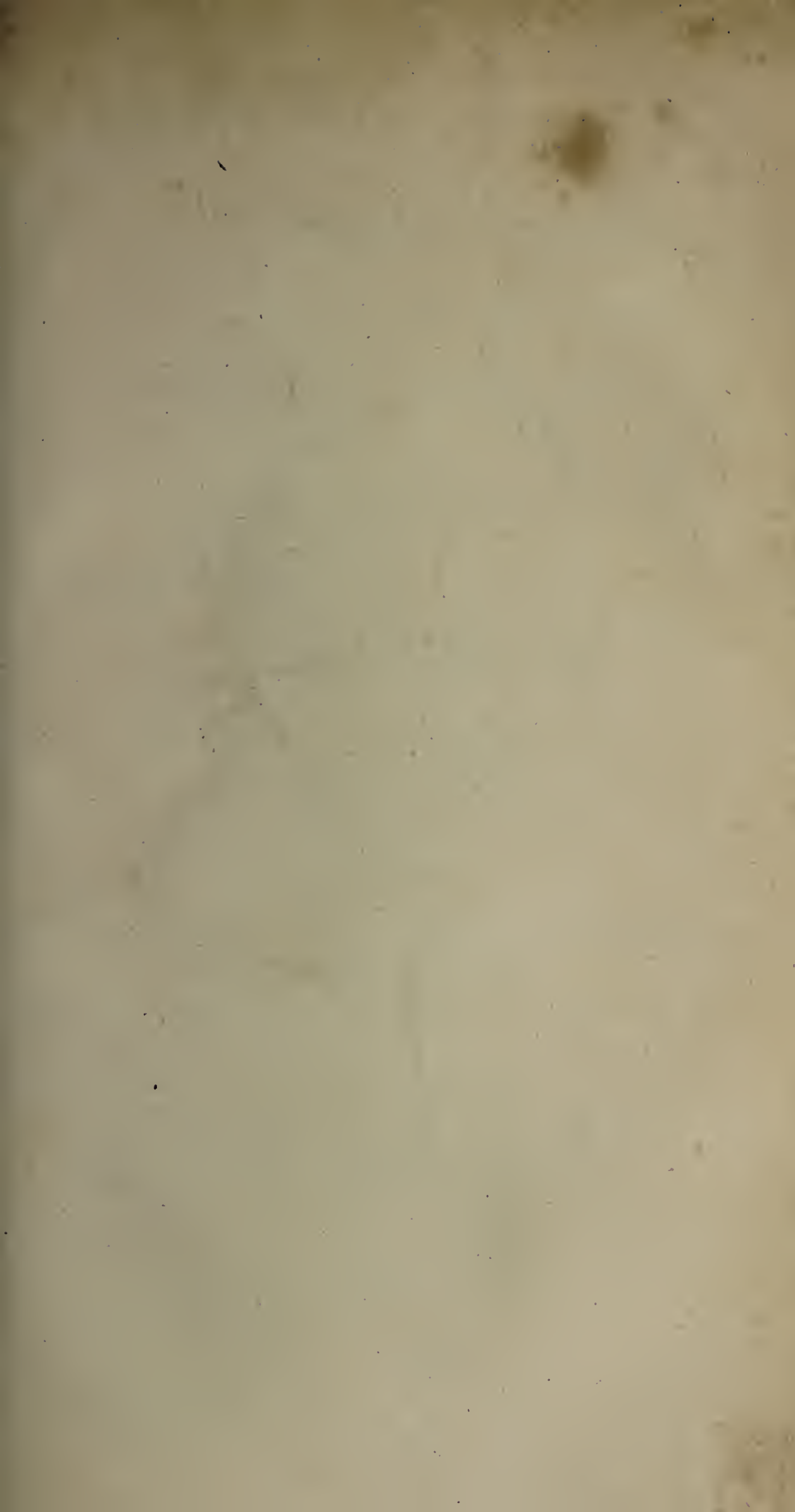
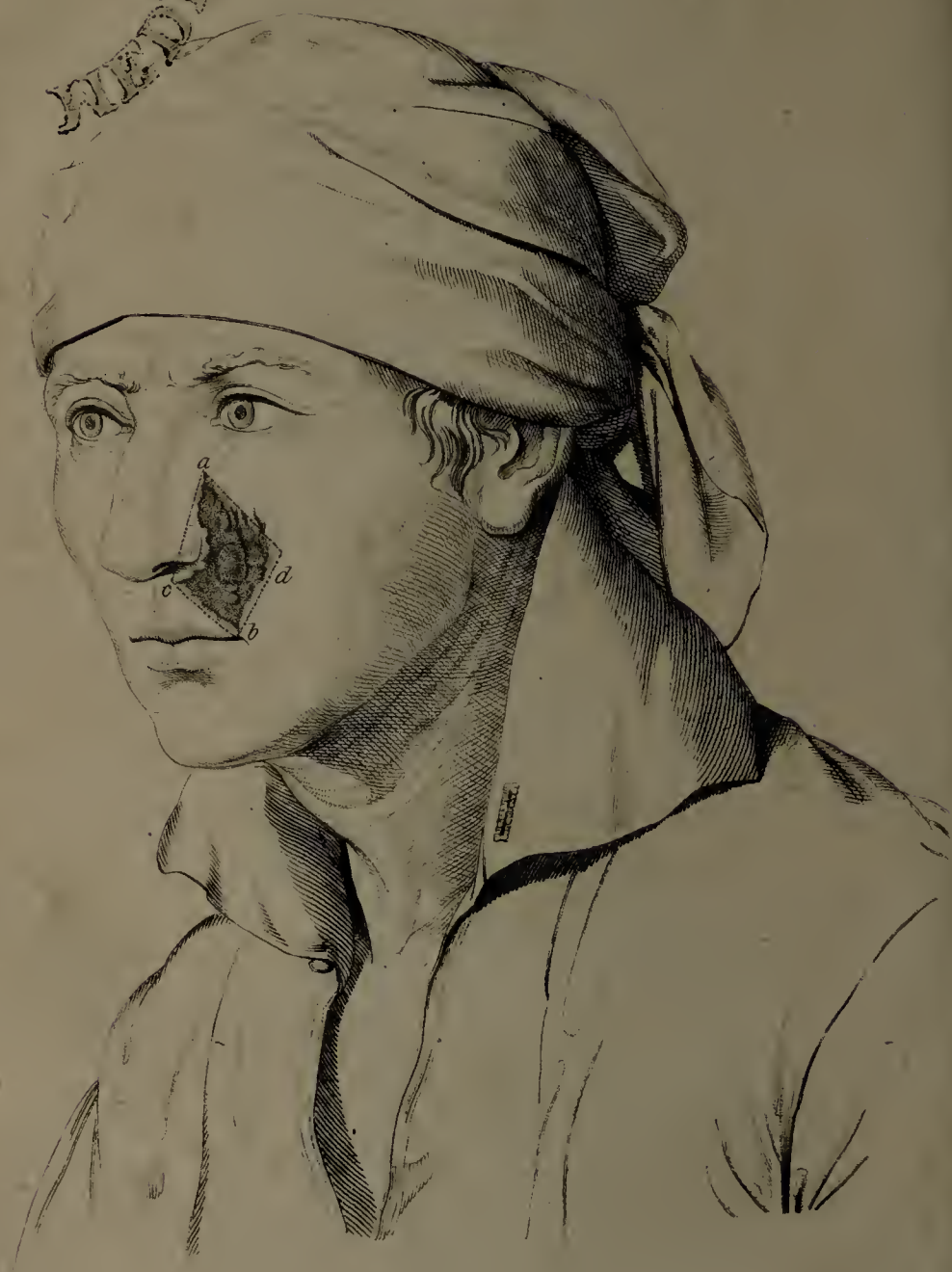


10 - 4

OBSERVATIONS
ON
SCIRRHUS AND CANCER.



ROYAL HÔPITAL DE
MÉDECINE



J. Basire sc.

4

REMARKS AND PRACTICAL RESULTS

OF

OBSERVATIONS

ON

SCIRRHUS AND CANCER

BY

ANTONIO SCARPA,

EMERITUS PROFESSOR AND DIRECTOR OF THE FACULTY OF MEDICINE
IN THE ROYAL IMPERIAL UNIVERSITY OF PAVIA, CHEVALIER OF
THE ROYAL ORDER OF THE IRON CROWN, MEMBER OF THE ROYAL
ACADEMY OF SCIENCES IN PARIS, F.R.S., &c. &c.

TRANSLATED FROM THE ITALIAN.

WITH AN

APPENDIX

CONTAINING AN ACCOUNT OF A SANGUINEOUS TUMOR OF THE BREAST, AND
SOME ANNOTATIONS ON THE TEXT.

BY

JAMES BRIGGS,

SURGEON TO THE PUBLIC DISPENSARY, AND ASSISTANT SURGEON TO THE
LOCK-HOSPITAL.

London:

PRINTED FOR T. CADELL, IN THE STRAND.

1822.



TO
JOHN BILLAM, M.B.

NOW
OF WAKEFIELD.

MY DEAR SIR,

I cannot allow the present opportunity to pass, however unworthy the occasion, without availing myself of it, to express a grateful acknowledgment of the many acts of your kindness towards me at an early period of my life while residing under your roof, and to assure you of the esteem which I must ever retain for your character and friendship.

I remain

Your faithful and obliged servant,

J. BRIGGS.

PREFACE.

THE original of the following translation, *Memoria Sullo Scirro e Sul Cancro*, appeared during the last year in the Transactions of the Imperial Institute of Sciences of Milan, and a copy of it, together with some other papers inserted in the same work, was obligingly transmitted to me by the author.

The Memoir, the title of which has been assumed in its present detached form as more expressive of the nature of its contents, presents a concise view of the author's opinions with regard to the origin, distinction, and treatment of cancerous diseases, subjects upon which every information that can be obtained, must be allowed to be desirable.

Without entering into an examination of the several opinions advanced in it, some of which may probably be new to the English reader, it appears to me, that the *locality* of cancer in its incipient state, and of necessity a radical cure of the disease by early extirpation, is deduced from a fuller and more satisfactory body of evidence than has been yet laid before the public.

The discovery of a remedy in the place of manual operation, has been anxiously sought for, and a

variety of internal and external *specifics* and *dis-solvents* at different times propounded for the cure of this disease, the efficacy of which has never been realized by any subsequent experience. If we permit ourselves to be guided by the facts obtained from an anatomical investigation of the scirrhus tumor, the success of such measures is as little to be anticipated on the ground of reason, as of experience; for what rational expectation can be entertained of the restitution, or discussion of a part, by internal remedies, the organical structure of which is found to be wholly subverted, and, as it were, disjointed from the general system, any more than of the dispersion of an encysted tumor, or opake lens of the eye by such means? It must be evident that in these instances no other means are left us than the absolute removal or destruction of the part by a mechanical operation. In allusion to this truth an eminent writer upon this subject has very forcibly remarked,

“ Perdit Medicina sæpe ægrotos, quos chirurgia servare poterat.”

From the facts here adduced, as well as from others, abundant proof is afforded that there is a period at which the removal of the diseased part may be effected with the fullest assurance of success. The determination of this important fact becomes therefore of the highest consequence, and

the circumstances arising out of it particularly with regard to the distinguishing characters of the scirrhous tumor, and the sources of the frequent failure of the operation, are the objects to which the author has more immediately directed his attention on the present occasion.

How far, and by what methods, the progress of cancer may be retarded, or the virulence of the disease subdued, in the more aggravated forms of it, are matters of distinct consideration.

In the Appendix will be found a short account of a disease of the breast usually considered as cancerous, which has been introduced not merely as tending to illustrate the author's opinion upon this subject, but because it seems to me to throw some light upon a complaint, of which, from its rare occurrence, we possess but very imperfect information, and which, left to itself, appears to have uniformly a fatal tendency.

J. B.

Edgware Road, October 1822.

ON SCIRRHUS AND CANCER.

NOTWITHSTANDING the various opinions that have been advanced, from the remotest periods down to the present time, with regard to the essence of scirrhus and cancer, some of which have appeared plausible ; there are several points, however, upon which men of erudition and experience are still divided, viz. whether these diseases are to be regarded as purely *local*, or as *general* as well as *local* affections ; whether the scirrhus attacks without exception every organic texture of the human body ; whether there are certain marks by which it may be distinguished from every other glandular tumor bearing an affinity to it, in the slowness of its growth, hardness, and insensibility ; whether the cancer manifest the same degree of malignancy in all the parts of the human body indistinctly ; and whether again, as some are of opinion, the scirrhus and cancer are diseases altogether *local*. And another question still arises, why cancer, especially the legitimate glandular, so constantly baffles the hand of the operator, and the action of the most powerful caustics, or the actual cautery.

I am far from a belief that our present notions greatly surpass those of the ancients with regard to the primary origin of the deleterious causes producing internal diseases generally, and, of those which are external, that of the scirrhus; any more than with respect to the specific qualities of the cancerous ichor. I entertain, however, a full confidence, that in the present state of surgical science, aided by the immense progress made of late years in pathological anatomy, it may now be conceded to us that we are enabled to distinguish the scirrhus, by means of certain signs, from other chronic tumors apparently similar to it; and, also as to the treatment of it, to demonstrate in the most satisfactory manner the advantage arising from a preventive and timely recourse to manual operation, as the only means of arresting this calamitous disorder.

It appears, in the first place, from almost innumerable practical observations, that scirrhus and consequently cancer never attack primarily the lymphatic system, nor of necessity the absorbent glands. One or two examples adduced to the contrary, in which a supposed scirrhus had been extirpated with some of the lymphatic glands of the neck (for every chronic glandular tumor rather harder than common, even by surgeons of eminence, has been too hastily denominated such),

have not been hitherto authenticated, much less confirmed, by rational experience.

The whole, or at least certainly some of the most remarkable of the *mucous* glands, as the *sublingual* and the *tonsillary*, are likewise known to be exempt from a primitive scirrhus and cancerous taint. With regard to the latter of these, the large hard tonsil improperly termed scirrhus, every experienced surgeon is aware that it may be removed, portion after portion, and even gradually destroyed, by the repeated applications of caustic, without any fear of its degenerating into cancer by such means. The *thyroid* gland, whether we are disposed to regard it as a lymphatic or mucous gland, never becomes *primarily* scirrhus or cancerous. And if in any instance this glandular body has been found eroded by cancerous ulceration, it has only been in consequence of its contiguity with the trachea or œsophagus affected by that disorder. Whenever consequently one or more of the lymphatic or any of the mucous glands already mentioned are found to be infected with cancer, it takes place only by the cancerous ichor being conveyed to them by means of the absorbent vessels, or by the infiltration of the morbid poison within the cellular tissue connecting the lymphatic gland with the cancerous part.

In the next place, scirrhus and cancer are never

met with *primarily* in the viscera, strictly so called, with the exception of those internal parts which are furnished with an intimate covering of the reflected skin, as the larynx, œsophagus, stomach, rectum, vagina, and neck of the uterus. The indurations of the brain, fungi of the dura mater, chronic tubercles of the lungs, of the liver*, spleen, omentum, pancreas†, kidneys, ovaria‡, prostate gland§ and neck of the urinary bladder||, are in no respect either scirrhus or cancerous, or of the nature of *medullary* fungi. These chronic indolent

* Baillie's *Morbid Anatomy*, fasc. v. plate 3, fig. 2. "I have seen," he observes; "several tubercles of this kind converted into a dense coagulated substance similar to that which is met with in the scrophulous glands.

† *Ibidem*, plate 7, fig. 1. "Induration of the pancreas" says he, "is not unfrequent; but even in this morbid state, it preserves its natural internal conformation, that is, the lobular structure; which is not found to be the case in the substance of the scirrhus gland, the whole of which has been changed into an uniform lardaceous mass.

‡ The internal structure of tumors of the ovaria, is not dissimilar to that of *strumous* or *steatomatous* tumors, which is widely different from that of scirrhus.

§ No surgeon has yet seen a genuine scirrhus, much less a cancer of the prostate gland. The lacerations which are sometimes made by the introduction of the catheter across it, are never found to degenerate into cancerous ulceration.

|| If in any instance the neck of the urinary bladder has been found infected by cancer, it has only been in consequence of its connection with the rectum or neck of the cancerous uterus.

tumors or fungous tubercles of the viscera (provided they are not manifest consequences of general *cancerous* contamination,) are, strictly speaking, but morbid phenomena of general scrophulous *dias-thesis*, or else indurations either referable to previous acute inflammation imperfectly discussed, or produced by slow and long protracted inflammatory action. The most eminent cultivators of pathological anatomy, in investigating the structure of particular chronic tumors of the internal and external soft parts, with a view of establishing their distinguishing characters on the irregularity of their internal texture, not having found in chronic tumors of the viscera precisely the same appearances as those which are constantly met with in the *genuine* scirrhus of the external conglomerate glands, have decided in placing them when hard, among the *scirrhoties* (an ambiguous term), and where they are soft and fungous among the *medullary* fungi, a disease equally fatal with cancer, not, it should be observed, however, as *primary* affection, but as consequent on that disorder affecting some of the external parts of the body. In this arrangement it appears to me that they have not paid attention to the circumstance of such chronic fungous tumors of the viscera being frequently met with in the bodies of those who die from various other diseases, besides

that of the malignant *medullary* fungus previously seated in some of the external parts of the body.

In the third place, scirrhus and cancer never make their appearance before puberty, and seldom before the twenty-fifth year in either sex. The slow spontaneous induration in one or more parts of the breast of female children ; the hard chronic tumefaction of some of the other external conglomerate glands ; the slow spontaneous and nearly indolent enlargement of the testes in boys, are invariably, and, without exception, of scrophulous origin and character.

In the fourth place, observation and experience teach us that cancer is never formed but in consequence of legitimate scirrhus affecting some of the external conglomerate glands, or of rigid indurated porri warts or malignant tubercles of the external or reflected skin partaking of the nature of scirrhus. Under one or other of these two forms the disease may make its appearance ; and the ulceration which ensues upon it is that which is strictly cancerous ; for an unclean fungous, spreading sore with hard inverted edges, is a thing widely different from a malignant ulcer formed upon a part which had been previously indurated by genuine scirrhus.

Conformably to what we know from observation,

there are but two organic textures, which serve as a nidus, if I may be allowed the expression, for the formation and developement of scirrhus and cancer; viz. the external conglomerate glands, and the skin. Among the glands of this class that of the breast is more subject to this disease than the rest. The next in succession are the parotid, maxillary, and lachrymal glands, and the body of the testicle, I say the body, for it is not yet fully ascertained whether the *epididymis* is ever the *primary* seat of scirrhus, although this part, in consequence of acute inflammation of the whole testicle, very frequently remains hard, indolent, and in an apparently scirrhus state for a long time, and even during the whole of life, without degenerating into cancer.

The latter of these two organic textures, as I have stated, in which the scirrhus and afterwards cancer is seated, is the skin. In consequence of the structure of this common integument, however, differing in many respects from that of the glands, the scirrhus presents itself under an appearance altogether peculiar to itself, viz. either in the form of a rigid wart, hard tubercle, or dark varicose knot. On an attentive examination, however, of the minute structure of these malignant tubercles, whether of the external or reflected skin, notwithstanding this diversity of external configuration,

their internal substance is found to bear a close resemblance to the intimate, firm, *lardaceous* texture of the glandular scirrhus, intersected in like manner by whitish lines, and filled, like that of the scirrhus, with a dense, coagulated, viscid, albuminous fluid. And it is deserving of remark, with regard to these malignant scirrhi of the skin, that their destructive tendency is not manifested with an equal degree of virulence in every part of the integument. For, it is observed, that the real nature of these excrescences, is more destructive in proportion to the vascularity, sensibility, or important offices of the parts which are covered by the affected skin*; cancer of the face and lips being less formidable than that of the internal nostrils, of the tongue, lachrymal caruncle, termed the *malignant encanthis*, that of the glans of the penis, of the rectum, of the vagina, or neck of the uterus.

With respect to the last of these parts, I can no longer suffer any doubt, from numerous anatomico-pathological and practical facts, that the primordia of cancer of the uterus are to be invariably traced to the ulceration of one or more of these small scirrhi, under the form of warts or tubercles which are formed upon the reflection of skin investing the upper part of the vagina, and the orifice and

* This difference has been remarked by Le Dran.—Mem. de l'Acad. R. de Chirurgie. Vol. III.

neck of the uterus. One or more of these malignant hard tubercles upon the reflection of skin, increasing in volume, encircle the os uteri like a ring, and occasion the opening and morbid dilatation of this natural orifice, the edges of which become hard and irregular, and afterwards exulcerate; and, from being indolent as at first, become painful, giving sudden transient shootings; and presenting, when examined by the finger, excavations and irregular elevated edges around the orifice of the uterus, as well as at the upper part of the vagina, from which is discharged a thin bloody ichorous fluid, of a *lixivial* odour. The cancerous ulceration at first spreads superficially upon the neck of the uterus precisely as the cancer of the skin affecting the face; but afterwards penetrates more deeply, first destroying the substance of the cervix uteri, then that of its body, and, lastly, its fundus. All other chronic hard indolent tumors which originate from the internal or external surface of the body, or fundus of the uterus, when examined anatomically, present nothing in their minute structure which is in common with the true scirrhus and cancer; nor is there, I may venture to assert, in the whole records of surgery, any well-authenticated fact of cancer of the uterus having originated from any other part of this viscus, except from the

skin reflected over the orifice of it, and investing the upper part of the vagina.

The diagnosis of scirrhus is regarded, and not without just reason, as one of the most difficult points in the general treatment of chirurgical diseases, on account, indeed, of a certain number of symptoms, which indicate this disease, belonging equally to other chronic, hard, indolent tumors of the soft parts. By an attention, however, to the series of phenomena which precede, as well as to those which accompany the true scirrhus, the distinguishing characters of it are to be determined. By examining, also, the internal texture of these tumors, and comparing them with each other, we are enabled to distinguish with certainty between the scirrhus and any other chronic, hard, indolent tumor, similar in appearance, though essentially very different from it.

And in the first place no doubt can be entertained with regard to the appropriate and distinctive characters of encysted tumors, as compared with those of scirrhus; or of those of *lipomata*, *sarcomata*, or *osteo-sarcomata*, the first of these having their seat in the cellular membrane, and the second and last in the cellular texture and the parts adjacent to it, and even in the ligaments and bones; parts altogether different from those which are the

subject of the glandular scirrhus, or that of the skin. The hardness of these tumors, where they are confined to the soft parts only, bears no comparison with the almost impenetrable or stony hardness of the glandular scirrhus, nor with that of the malignant, warty excrescences of the external or reflected skin.

Scrophula and struma*, which are probably of common origin, attack sometimes, it is true, though very rarely, in persons of adult age, some of the external conglomerate glands †; they most commonly produce swelling of the lymphatic glands, which, as I have before stated, are never *primarily* affected by scirrhus or cancer. Where scrophula or struma occasion enlargement and hardness of any of the external conglomerate glands, the nature of the tumor, not only in infancy but in

* Appendix, note (A).

† That the struma is not confined to the thyroid or lymphatic glands alone, but occasionally affects some of the external secreting conglomerate glands, is a matter known from the time of Brassavola. Comment. in Aphor. Hipoc. 26, lib. i.

Celsus, *says he*, “Megen chirurgum referre dixit in mammis mulierum se strumas reperiisse, ac si magnum quid retulerit. Nos enim, non solum in mulierum, sed et in virorum mammis strumas vidimus.”

Ludovicus Mercatus affirms, “In mamma glandulosus quidam tumor progignitur qui ei generi tumorum incumbit, quod scrofulas obtinere scimus.” *De mulierum affectibus*, lib. i. p. 128.

persons of advanced age, is marked by the habit of body, and the known symptoms of scrophulous predisposition : for in adult male subjects, the general habit of body exhibits more of the feminine than of the male character. The presence of the scrophulous temperament is also generally marked, in both sexes, by pallidness of the skin, laxity of fibre, turgescence of the abdominal viscera, weakness of the digestive organs, frequent tormina of the bowels, occasional diarrhœa, and not uncommonly, in adults, cicatrices upon the lymphatic glands, which had suppurated during infancy. The scrophulous taint of the habit is likewise never confined to one of the external conglomerate glands alone, but affects at the same time a greater or less number of lymphatic glands in various parts of the body, particularly in the neck, groins, and axillæ. The scrophulous tumor also is regular and smooth, and never approaches to that degree of hardness which is altogether peculiar to scirrhus ; a difference which is readily detected by the hand of an experienced surgeon. Lastly, an appropriate and characteristic symptom of the scrophulous tumor, from its commencement, whether it be seated in a lymphatic or conglomerate gland, is the low, dull, uneasy sensation, which accompanies it, or, as it is called by surgeons, *dolor gravativus* ; for tumors of this de-

scription are never exempt from a certain degree of chronic inflammation, which increases and becomes more marked in proportion to the augmentation of the tumor.

When scrophula or struma occupies the testis, it is an invariable fact, that this chronic enlargement of it is never, from its first formation, *isolated*, but is always associated with a scrophulous or strumous affection of the lumbar and mesenteric glands. This constant practical fact deserves to be more particularly attended to by the young surgeon, inasmuch as that portion of the spermatic chord, which is situate in the groin, being slender and in an apparently sound state, is an inducement to the removal of the large and incommodious testis by operation ; the patient also in the first stage of this complaint not being always so emaciated as to admit the mesenteric, and much less the lumbar glands to be felt, although now become very tumid and hard. It is certain, however, whatever may be the real cause, that after the excision of the strumous testis, although the wound heal, as it generally does, in a moderate time, the mesenteric and lumbar glands begin very soon to enlarge in volume, and increase with such rapidity as to throw the patient more speedily into a state of marasmus, than when the extirpation of it has been omitted. Some modern pathologists, from the smooth and regular surface of this kind of

tumor of the testis, its equable resistance to pressure, occasional softness in some parts of it, with an apparent fluctuation and constant exemption from violent or darting pain, are disposed to place it among the malignant *medullary* fungi, and consequently to regard the enlargement of the lumbar and mesenteric glands, simply as a necessary consequence of the absorption of the malignant fomes existing in the tumid testicle. But there is no point in the whole range of surgery, in my opinion, more clearly demonstrated than that the chronic enlargement of the testis, of which I am now speaking, is widely different from the *malignant* soft fungus. That it is evidently of a *strumous* character, and of common and simultaneous origin with that of the diseased lumbar and mesenteric glands. We have more than one specimen of this disease preserved in the pathological collection here, in which it is apparent, that after the removal of the strumous testis by excision, the disease, which in the lumbar glands was scarcely before perceptible to the touch, had increased rapidly to such an enormous size as to inclose, in a short time, the upper extremity of the *jegunum*, and a considerable part of the abdominal aorta; an increase of the lumbar glands certainly too sudden to be attributed to the absorption of malignant ichor from the testicle which had been removed but a few months before death.

Nor is it necessary to have recourse to the supposition of any deleterious agencies by absorption, in order to explain why the patient is hurried into a state of marasmus, the enormous strumous enlargement of the lumbar and mesenteric glands, being alone sufficient to produce such unhappy event. Whether, in these particular cases, the tying of the spermatic artery in the groin simply, in the manner in which it has been performed by Professor Maunoir *, for the cure of the *sarcocele*, may be sufficient not only to exempt the patient from the removal of the testicle, the same beneficial consequences being attended by it, but also from the consequent rapid increase of the lumbar glands, is a matter which must be determined by experience.

The peculiar and distinguishing symptoms of scirrhus are of a perfectly opposite character to those of struma affecting any of the external conglomerate glands. The scirrhus attacks persons of advanced age, of rigid fibre, and of a sanguineo-bilious temperament, in whom if there be any suspicion of general vice of the habit, it is not that of scrophula. The scirrhus is *solitary*, that is, it affects only some one of the external conglomerate glands, and it rarely or ever happens that two really legiti-

* Memoire sur une nouvelle méthode de traiter le sarcocele sans avoir recours a l'extirpation du testicle. 1820.

mate scirrhi are met with in the same individual. The scirrhus, from its first appearance, possesses an excessive and almost stony hardness, is perfectly indolent, in consequence of its not being associated, like the scrophulous or strumous swelling, with low chronic phlogosis. The scirrhus increases slowly in every direction, and feels to the touch as if composed of so many pieces of hard substance agglutinated to each other. Its insensibility, notwithstanding the increase of the tumor, is preserved, until it degenerates into cancer. This distinguishing character of the scirrhus, contrasted with those of struma, which, as I have stated, is not altogether insensible, has been remarked by Galen, in the following words:—" *Exquisitus scirrhus tumor est præter naturam sensu carens et durus; non exquisitus autem* (alluding to strumæ) *non omnino sine sensu est, sed ægre tamen admodum sentit.*"—The inveterate scirrhus, which is generally tuberculated, raises the skin irregularly, to which in some parts it forms an adhesion. As soon as the darting pains commence, the scirrhus, so far from encreasing in size, shrinks and acquires a degree of hardness approaching, one might say, to dryness, drawing inward along with it that portion of skin to which it had formed adhesion; precisely contrary to what happens in struma when the tumor

has arrived at its largest bulk, and is on the point of bursting, or suppuration taking place within the substance of it.

In regard to the difference between the internal altered texture of the strumous conglomerate gland and that of scirrhus, the following are the results, furnished by anatomical investigation. A coloured size-injection thrown into the arterial vessels of the strumous gland penetrates it at first very freely, but becomes soon effused into it, in consequence of the flaccidity and friability of the vessels which supply the substance of the gland. When a section is made of the strumous gland, a vascular compact substance presents itself, filled with a glutinous (*albuminous*) fluid, mixed with a granulous, sebaceous, or cretaceous substance. Between the body of the tumor and its exterior involucre, there are always some vestiges of *coagulable* lymph; and frequently also, in the internal part of it, indubitable proof of its having suffered inflammation, though slight and passive. In the scirrhus tumor, on the contrary, the injection, though of the finest kind, never fills but the principal arterial trunks of the diseased gland. The hardness of the substance composing the scirrhus is altogether peculiar to this tumor, and cannot be confounded even by the most inattentive observer with that of any other kind of chronic glandular en-

largement. It has the appearance of softened cartilage, and strongly resembles the mollified substance of the cartilages and ligaments of the joints, in the change observed in the *white* swelling. When the scirrhus is divided through the centre, it presents a whitish surface, equally striped with bands still whiter than itself, like rays drawn from the centre to the circumference, or in the form of ramifications*. On pressing upon it, a transparent gelatinous (albuminous) fluid issues from it, which diffusing itself upon the cut surface, renders it in a short time lucid, and as if it were covered by varnish. Lastly, if the struma and scirrhus are macerated together in water for a considerable length of time, the struma is found to separate into a soft spongy fimbriated mass, while the scirrhus retains nearly the peculiar hardness which it possessed before it was subjected to that process. This remarkable difference in the cohesion between the component parts of the scirrhus and those of struma, points out the reason why in some supposed cases of *occult* cancer, but which in reality were of a strumous nature, cavities have been found containing quantities of pure or bloody serum of two, four, and even six pounds weight, which certainly could ne-

* Baillie's Morbid Anatomy.—Abernethy's Surgical Works, Vol. ii. See Appendix, NOTE (B).

ver take place in the intimate hard tenacious substance of scirrhus *.

Simpler, and more easy of investigation than this, is the diagnosis of tumors of the conglomerate glands, occasioned by acute inflammation which has been neglected or repelled. For the character of these glandular tumors is easily recognized by attending to the violence of the preceding inflammation, in which no proper curative means had been used, or which had been treated with topical irritants or discutient applications; and by considering the comparatively small degree of hardness of the tumor when contrasted with that of scirrhus, its unextinguished sensibility, and the exemption of the patient's constitution from all general morbid predisposition of habit.

With regard to the distinguishing symptoms between the scirrhus and the incipient, malignant, *medullary* fungus, it is proper to repeat that scirrhus attacks only some of the external conglomerate glands, and the exterior or reflected skin, while the medullary fungus has its origin in the sub-cutaneous or inter-muscular cellular texture, or, as some suppose, even in the sheaths and substance of the nerves themselves. The recent medullary fungus also, provided it is not too deeply seated, has conjoined with its hardness so remarkable a degree of

* Appendix, NOTE (C).

elasticity, that this latter might be said to be the peculiar and characteristic symptom of this swelling, by which it is principally distinguished from the congenital varicose sanguineous tumor (hæmatodes). The inveterate medullary fungus, which is in general much more extended than elevated, is partly hard and elastic, partly soft, with an apparently subjacent fluctuation; circumstances that are never met with in the scirrhus before it has degenerated into the state of occult cancer. The greatest difficulty offered in the diagnosis in this case is, where the incipient fungus is situate upon one of the lymphatic glands of the neck*, axillæ, or groins, under which circumstances the recent malignant tumor may be mistaken for a scrophulous swelling of some of the lymphatic glands; an error which would be fatal and shorten the patient's life: for the use of resolvent or emollient remedies, or the application of the actual cautery, or of caustic, would only have the effect of hastening the protrusion of the fungus through the skin, the sad consequences of which are known to every medical man. To guard against so serious an occurrence we have nothing to guide us except the singular *elasticity* of the *medullary* tumor, which is altogether peculiar to it from its original formation.

* Journal général de Med. April 1821. Observ. de M. Leon Dufour. P. 32.

The real nature of warts and malignant tubercles of the external or reflected skin, is to be judged of from their unusual rigidity and hardness ; from their being observed to be deprived of their natural integument, which, when they are benign, retains them within certain limits upon the skin ; from the unusual size and depth of the base, which seems to extend beyond the substance of the skin ; from their being of a yellowish-livid, or dark colour, surrounded by a small red circle ; from their rapid and almost sudden growth ; from the intolerable pruritus excited by them ; from the fissures that are formed in them, from which there is a slight discharge at times of yellowish sanguinolent acrid serum, preceded by sudden darting pains.

Among the malignant tubercles of the external skin some are occasionally met with, especially upon the forehead, lips, and chin, which would seem rather to belong to the *elephantiasis* than to be regarded as hard warts or cancerous tubercles. I have examined some of these tubercles and extirpated them with success, either by an operation similar to that performed for the hare-lip, or by including the excrescence in an oval incision of the integuments, and afterwards healing the wound by the first intention. As far as I could discover in the cases which came under my observation, the malignant tubercles of this sort had appeared as a sequela of the invete-

rate lues venerea. Their appearance at first was that of a small granulated red-livid indolent tubercle, which afterwards increased to the size of a filbert, and was covered with whitish scales, which on falling off discovered the part to consist of numerous other small red tubercles resembling a strawberry, from which there was an oozing of viscid though not very acrid fluid, producing upon it anew, a fresh scaly surface.

It is highly erroneous in practice to suppose that every hard chronic, indolent, tumor, whether glandular, or of any other organic texture, which was not originally malignant in its nature, may from lapse of time and the concurrence of ordinary circumstances be changed into cancer. It is possible, and daily observation demonstrates it to us, that any hard chronic tumor, essentially different from scirrhus in a debilitated subject affected by any general vice of the habit, particularly the scorbutic, under improper treatment, may degenerate into a sordid fungous spreading ulcer; but we never find under such circumstances that any of these tumors are converted into cancer. We sometimes see ulcers formed upon the face, nose, lips, pudendum, and prepuce, of a totally different nature from the herpetic which at first sight have the appearance of so many open cancers, but which heal under proper treatment. Such for example is the *venerola*

vulgaris, or *ulcus elevatum* *, in which the ulcer takes place upon an elevated fungus, similarly to that of cancer, but which heals under the use of such internal and external remedies as exasperate the open cancer. The scrophulous or strumous tumor itself, congestions of milk in the breast, glandular indurations where the inflammation has been repelled, lymphatic abscesses incautiously opened by the knife or caustic, and various other external maladies, under improper treatment, in unhealthy subjects, become changed into unclean sores which would be readily denominated cancerous, but which are strictly not such. The same must be said of the degeneration into fungous ulceration, occasioning the erosion of *encysted* tumors, *sarcomata*, *porrifici*, *condylomata*, *osteo-sarcomata*, *spina ventosa* †. Neither is it true that the hard malignant excrescence of the internal nostrils was in its origin a soft, benign, indolent polypus; from its first appearance it was a hard malignant tubercle of the reflected skin. The common uncontagious as well as the contagious hospital gangrene, and the sphacelus, which destroy almost every kind of organic texture, never generate

* Evans, Patholog. and Practical Remarks.

† Richter did not carefully investigate the truth when he affirmed, cancer sedem aliquando in tumore cystico figit; subinde os primum adficit, et sub specie exostoseos, aut spinæ ventosæ apparet. *Observ. Chirurg. Fasc. iii. p. 44.*

the ichorous fluid of cancer, and if any thing similar to this is occasionally seen, it is most reasonable to believe the morbidly affected part to have been the seat of malignant *medullary* fungus. I have had twice an opportunity of examining a supposed open cancer of the breast, which had existed for some years. The patient had complained of an uneasy smarting sensation, but never of sudden darting pains. The ichor discharged from them had not the lixivial odour. The general habit of body was such as is usually met with in scrophulous subjects and had been so from infancy. There were not wanting in the neck, axillæ, groins, and abdomen, tumid and indurated lymphatic glands without there being the least appearance of general cancerous *cachexia*. The ulcer, which had the appearance of *open* cancer, was therefore nothing more in reality than an ulcerated struma which had become phagedenic in a scrophulous and exhausted subject. In reference to these highly important points in practical surgery, Celsus* has judiciously laid down the following admonition. “*Distinguere oportet cacoëthes, quod sanationem recipit a carcinomate quod non recipit.*”

This observation has led me to believe, or at least to consider it as probable that the gelatinous [*albuminous*] fluid condensed in any of the external con-

* De Medicina, lib. v. cap. 28.

glomerate glands, rendering it scirrhus, as well as the *liquamen*, which is fixed and coagulated in the intimate texture of warts or malignant tubercles of the external or reflected skin, although not apparently different from the viscid fluid met with in other hard chronic tumors of these glands, and common benign warty excrescences of the skin, is, nevertheless, a matrix as it were, containing the germ of a peculiar morbid poison in a latent and inert state, which only awaits the concurrence of particular circumstances to develope and unfold its noxious qualities in full force. It would be absurd to suppose that the mere lodgement and coagulation of this gelatinous (albuminous) fluid, which was originally bland and innocuous, when separated from the gland, should, by physical laws only or chemical combinations, be sufficient causes to convert it into an ichor so destructive as that of cancer, whether contagious or no; or that so potent an animal poison should be generated merely by an imperfect process of inflammation, or by a feeble effort towards suppuration excited in the sinus of the gland; for we find that other chronic indurated tumors of the same glands, which owe their production and continuance to an albuminous viscid concrete humour, similar in a great degree to that which is contained in the scirrhus (as far as can be discovered by our senses) and subject to the same

causes inducing inflammation and afterwards imperfect suppuration, never degenerate into cancer, according to the common adage that *nemo dat quod non habet*. One of the inherent properties likewise of the morbid germs derived from internal elaboration, is that of being deposited by the vital powers, not upon all parts of the body indiscriminately, but upon certain and determinate organic textures as is precisely the case in scirrhus, which is constantly seated in the external conglomerate glands or in the skin.

Whatever obscurity, however, there may be with regard to the primary origin of the morbid principles generated in the animal œconomy, observation and experience have taught us that germs of diseases * are actually formed in the general system of the human body, which, not being miscible with the blood, are afterwards by the power of vitality either expelled entirely from it, or driven only to the skin, or else deposited in some of the external emunctories †, and there held for a greater or less time, in a *latent* and *innocuous* state. The

* Quesnay, Mém. de l'Acad. R. de Chirurgie, vol. 1.

† Quippe ubi per cunctas ierant contagia venas,

Humoresque ipsos, et nutrimenta futura

Polluerant, natura malum secernere sueta

Infectam partem pellebat corpore ab omni.

Fracastorius Syphil. lib. 1.

erysipelas, particularly the acute, furunculi, exanthemata, the generatory principles of contagion, for eventually even contagious diseases originate in morbid action of the animal economy, whatever may have been the nature and combination of the *miasmata* which have given rise to them; the herpes, swellings of the parotid glands, critical abscesses, salutary metastases, syphiloid affections, and various other maladies of constitutional origin, are incontestable proofs of the truth of this. Kirkland mentions the case of a man who had a swelling of both the parotid glands, without any previous indisposition, which was resolved by means of discutient applications; but immediately on the subsiding of the tumors, was seized with malignant fever. We have many examples similar to this; and when I reflect that the germ of erysipelas, that of herpes, measles, and similar other diseases which are determined to the skin and deposited upon it, and are afterwards thrown back into the current of the circulation, produce general disorders of the frame more formidable than those which they had occasioned before, I feel disposed to believe that these germs, these seeds of disease, receive some greater degree of developement, and, consequently, of malignity, in the part in which they were deposited by the vital action, and for a certain time held in it, as it were latent.

It is in conformity with these principles, drawn

from analogy, and the combination of the phenomena which precede and accompany scirrhus and cancer, that it appears to me not remote from the truth to consider the scirrhus as the deposition of the seed of a more formidable malady than the scirrhus itself, which not being susceptible of being expelled, nor carried back into the circulation, remains quiescent and innocuous in it, until by the concurrence of some internal or external causes, it is brought into full activity in the part in which it is seated.

The ancient physicians were of opinion that the virulence of cancer originated in an alteration of the actions of the liver, or more particularly in the *black melancholic bile*, deposited in some gland or other part of the body, which became thereby hard and scirrhus. Galen * went further in supposing, that “*where the atra bilis was diffused through the whole body the elephantiasis was generated, but where it was deposited in a particular part of it, it formed the scirrhus.*” Whether the opinions of Galen and the older writers on surgery are erroneous in this respect I cannot determine, for the contrary has not hitherto been demonstrated; but that in which their views appear to me deserving of commendation, is their recognizing the germ of scirrhus and cancer as proceeding from the operation of internal causes.

An object no less deserving of enquiry is,

* De Symptommatibus et Causis, lib. II. cap. 2.

whether there be such a thing in nature as a scirrhous *diathesis*. I am inclined to think otherwise, and am of opinion that the formation of the germ of scirrhus in the general system, is casual or temporary. First because the scirrhus is an isolated solitary disease, and limited in the same manner as critical tumors or salutary metastases to some of the external conglomerate glands, or to a certain portion of external or reflected skin, a circumstance which never occurs in respect to other external maladies originating and kept up from *diathesis* or *dyscrasia* however permanent, in which the external malady shows itself in the same subject simultaneously or successively in several parts of the body endowed with the same texture, sometimes very distant from one another. Because, in the second place, if the scirrhus be extirpated before it begins to degenerate into cancer, the disease is radically cured; on the contrary, if the scirrhus be removed in the state of occult cancer, the disease returns, though under a form different from that of the *primitive* scirrhus, nor is this new form confined, as that of the scirrhus is, to a few particular organic textures, but invades and infects the whole, which seems to show that the cancer is a disease of secondary formation, and that, altogether local and independent of a *permanent* scirrhous *dyscrasia*, a state which if it existed, would inevitably be fol-

lowed, where the scirrhus had been extirpated in its first stage, by the reproduction of new genuine scirrhi, an event which is contradicted by experience.

Another circumstance to be estimated in investigating the primary origin and essence of scirrhus is, that of the *predisposition* to this sad affliction. For of a number of persons of both sexes exposed to the same combination of causes, which in the schools are called excitant (*produtrici*) of scirrhus and cancer, the whole are not attacked with this disorder. I see but in all these causes only such as are *occasional*; as, for example, the suppression of the menstrual flux in women, the hæmorrhoidal in men; the disappearance of cutaneous acrimonies, or of the rheumatism, external violence, deep and long continued grief of mind, the abuse of venery, and the like. And it is right to observe that these are not even the only occasional causes, for there are numerous examples of women affected by scirrhus and cancer, where the menstruation is regular, and of persons in whom it is neither to be attributed to the suppression of habitual sanguineous evacuations, the disappearance of cutaneous acrimonies, of rheumatism, irregularity in living, or long continued mental distress. The *efficient* cause then of this disease is to be traced to no other source than that of internal elaboration, to which

every individual is more or less or in no measure predisposed although exposed to the same *occasional* causes. For these reasons I do not believe it to have been in any manner proved, that there are scirrhi and cancers which are solely produced by external *causes*, to which some writers have been pleased to attribute a character less formidable than that which is met with in the same disease proceeding from internal morbid action. And my assertion is also founded on experience.

The causes which determine the developement of the *latent* morbid seed deposited by the vital powers in the scirrhus, and the consequent degeneration of the disease into cancer, are all such internal and external stimuli as are capable of exciting the vascular action of the scirrhus gland towards a process of inflammation and suppuration, a process, which, as it can only be imperfectly carried on in an atonic and nearly disorganized state of the gland, instead of producing a healthy suppuration, causes only a sort of *fermentation* or *sub-ebullition* in it, by which the malignant semen is developed within its sinus, which quickly infects the albuminous fluid in which it had been deposited, and converts the whole into cancerous ichor.

The symptoms which announce this unhappy event are, a pruritus, and a sense of burning heat within the substance of the scirrhus gland, without

any alteration in the appearance of the skin that covers it. To these disagreeable sensations succeed acute darting pains, which are not increased by making pressure upon the tumor. Shortly after this, the lymphatic glands, which correspond to the seat of the scirrhus, now converted into *occult* cancer, become inflamed and painful. If, in this second stage of the scirrhus, an incision be made through the centre of the diseased conglomerate gland it is found, that the internal substance of it, which during the first stage of the disease, while indolent and innocuous, had only a hard uniform consistence, and striped with whitish bands in various directions, now presents the appearance of a hard, lardaceous, scaberous mass, dotted here and there with red points, excavated in many places by cells of various size and depth; containing a viscid cineritious, sanguinolent fluid, of an highly acrid quality. The margins and the internal parietes of these cells are of a pale red colour, while the lower part of them is covered by a stratum of soft and fungous substance, small isolated portions of which are seen here and there, which may readily be detached from the subjacent hard mass with the point of the nail.

Shortly after the commencement of the lancinating pains, and more particularly after the swelling of the correspondent lymphatic glands, the

patient, who during the first period of the scirrhus had enjoyed good health, or even a florid appearance of it, begins to complain of general weakness, faintness of stomach, and wandering pains over the whole body. In process of time, the destructive poison introduced into the current of the circulation spares no organic texture, nor ultimately even the bones. The skin acquires a yellow tinge, aphthæ appear on the palate and fauces, irregular evening fever is excited, vomiting, and sometimes diarrhœa. The cancer from *occult* now becomes *open*, surrounded by a thickening of skin and cellular substance, occasioned by the infiltration of the malignant ichor, which converts all that it meets in its passage into a compact uniform mass. From the wound spring up fungosities, which disappear and return again, with spots of a livid or cineritious colour. In some instances these symptoms of general cancerous *cachexy* manifest themselves after the formation of the occult cancer, without any tumefaction or previous infection of the corresponding lymphatic glands, a circumstance which happens in some cases in consequence of the cancerous ichor passing circuitously along the *anastomosing* lymphatic vessels, and avoiding the obstacle of the absorbent glands, of which we have not unfrequent examples in cases of general venereal infection, where there has been no previous swelling

of the inguinal lymphatic glands. It is necessary also to observe that the cancerous poison admitted into the current of the circulation does not, in all instances, immediately show itself; in some it takes place more quickly, in others more slowly, and occasionally after a considerable lapse of time*; which, if it happen after the extirpation of the occult cancer, deludes bitterly the hopes of the patient and the operator. And in this respect the cancerous poison resembles very much that of lues venerea, the symptoms of which we occasionally find to appear a considerable time after the indubitable general venereal infection.

If therefore, during the first period of the scirrhus, the person affected by it enjoy general good health, and if, in the second stage of the disease, the symptoms of cancerous cachexy appear, it seems to me highly probable, from what has been already stated, that the scirrhus is originally and during its first period but the *deposition* of a malignant germ generated in the system at large, and afterwards impelled by the vital forces, and concentrated wholly in the sinus of some of the external conglomerate glands, or upon some portion of external or reflected skin, where it is retained in a *quiescent* and *innocuous* state; and of consequence that the cancer is but the result of a local process of im-

* Appendix, NOTE (D.) p. 58.

perfect suppuration, excited in the intimate substance of the scirrhus gland, by which the malignant deposit is converted from this latent and inert state into cancerous ichor.

From these premises, which will be shortly more fully corroborated by practical observation, it arises, as a necessary consequence, that the demolition of the scirrhus can never be attended with success, unless the operation have been executed before the developement of the latent morbid seed in the substance of the scirrhus gland, or malignant wart or tubercle of the skin, that is to say, before the commencement of the lancinating pains and infection of the lymphatic glands connected with the seat of the occult cancer. It must be observed, that those who boast of the great success of extirpation in *occult* cancer *, have applied the term *cancer* in a more extensive signification than is usually given to it, as is evident from the perusal of the observations of Hildanus upon this subject; or that they have been more fortunate than others in extirpating the disease during the first stage of it, while the malignant germ was yet held in a *latent* and *innocuous* state; or else that the cases in which

* Pour chanter victoire il ne faut pas avoir pris une glande engorgée pour un cancer caractérisé, comme font quelquefois ceux que se vantent d'en avoir guéri-des milliers. Dionis, Cours d'operations, p. 460.

they had performed the operation, instead of those of occult cancer were strumous diseases of the conglomerate glands, as in that related by Richter*, of the virgin who, according to the author's opinion, had an *occult* cancer in both the breasts, but which in reality were only strumous swellings, cured by means of excision. Of the same description equally, was the tumor removed from the breast in another instance by that distinguished surgeon†, of which he

* Observ. Chirurgicæ, fasc. III. p. 54.

† Ibidem. Incisâ cute, cum jam mammam a musculo pectorali digitorum ope separarem, incidit manus in cavitatem quamdam insignem in ipsâ mammâ conditam, prorumpente subito insigni liquoris rubicundi, similis illi qui exulcusculo profluxerat, copia, quæ facile libras duas pondere æquabat. In alterum ejusmodi cavum manus incidit cum partem inferiorem mammæ separaret. Cum inferior pars mammæ paulo firmiter pectori adhæreret, cultelloque opus erat, superiorem digitus facile separabat. Erat autem in superiori hoc loco substantia mammæ glandulosa prope muscolum pectoralem *tam tenera, mollis, friabilis*, ut digitus separans sæpe non inter mammam et pectus, sed in ipsam profunde satis penetraret; unde factum est, ut peractâ operatione, *plurimum substantiæ molliusculæ caseosæ quasi musculo pectorali adhuc, adhæreret*. Quamvis hæc materia facile separari potuisset, (*tam mollis enim erat ut facile digito contereretur,*) illam tamen haud separavi. *Nihil enim scirrhosæ duritiæ, aut cancerosæ exulcerationis illis inerat.*

After all this the author asks: *Quonam hæc ægrota morba periit? ego quidem nescio.*

It is surprising that this erudite and experienced surgeon

has dispensed with the definition, as a thing of difficult investigation, while the matter itself was most evident. The same may be also said of the hard chronic tumor of the breast, mentioned by Flajani *, in a young woman, twenty years of age, upon whom the operation was repeated three times, the whole of the mammary gland, necessarily, not having been removed by the two preceding excisions. *After the third operation, he remarks, the cure was radical and permanent. The last tumor weighed more than six pounds, in the base of which there was a sac containing eight ounces of corrupted serum. Strumous and not cancerous was the ulcerated, fungous sanguinolent tumour of the breast as large as the human brain, with a hard whitish body interspersed through it, which Valsalva, as referred to by Morgagni †, successfully extirpated by means of a ligature applied around the base of the hard and vast tumor.* Of these successful instances of cures

should not have perceived, that the case here related was most evidently a strumous affection of the mammary gland, which could in no manner be confounded with scirrhus or cancer as he himself intimates : and that in the relation of this history he should not have recollected the cases related by the elder *Monro*, who had several times found in the mammary gland, improperly considered as scirrhous or cancerous, cavities filled with sanguinolent serum of several pounds weight.

* *Collezione di osserv. e rifless.*, Vol. I. osserv. 67.

† *De Sed. et Caus. Morb.*, Epist. 50. Art. 16.

by extirpation, placed to the account of *occult* and *open* cancers, a considerable number might here be adduced, as well as some drawn from my own practice, if it were any necessity, after those already referred to, and having intimated how readily heretofore, every chronic glandular tumor, rather harder than natural, has been termed, even by surgeons of eminence, scirrhus, and the degeneration of it regarded as cancer.

But, returning to the consideration of the circumstances which make so material a practical distinction between the first and the second stage of scirrhus, and to which the generally unsuccessful issue of extirpation in the latter period of the disease is to be attributed: *This difference in the result, observes Caldani*, has been always regarded by me as a proof of the existence of a double species of cancer, viz. local and general; in the former the operation is usually successful when recent and marked by those characters which I have before laid down. And, on the other hand, almost always unsuccessful in the latter, because dependent on vice generated in the fluids, or in some other manner imparted to them.* Practical observation perfectly coincides with the reflections made by this able Professor. As long as the morbid seed deposited wholly by the vital powers in the scirrhus conglo-

* Società Italiana. Vol. II. p. 11.

merate gland remains latent and inert, the disease, in this respect, is purely *local*, or that is, of the first species alluded to by the above writer ; and consequently the disease is susceptible of a favourable and permanent cure by extirpation. On the contrary, as soon as the morbid leaven is developed in the scirrhus gland, and converted into cancerous ichor, and by means of absorption has proceeded to contaminate the mass of the humours, the disease is no longer, as at first, *local*, but also general, and consequently incurable. It is only upon such grounds that a just estimate can be made of the successful operations of this kind cited by Hildanus, Hill, and Mr. Ben. Bell, or a judgment formed of the unsuccessful cases recorded by the elder Monro, Houperville, Callisen, Boyer, and by an almost infinity of ancient and modern surgeons ; or that we can pronounce upon the inefficacy of certain boasted remedies for the cure of cancer, and the inutility even of the inoculation of the contagious hospital-gāngrene, for the cure of *occult* or *open* cancer.

Mr. Pearson *, in delivering his opinion upon this practical point of surgery, supposes that the scirrhus is never, even from its first appearance,

* *Practical Observations on Cancerous Complaints*, p. 32.

confined and circumscribed within the limits of the gland which it occupies, but that the disease extends beyond the sphere of it, and is constantly associated with other smaller scirrhi which, from their extreme minuteness, escape observation. By waiting, he observes, until the principal scirrhus has acquired its greatest augmentation, an advantage is obtained of being able to extirpate, together with it, all the surrounding small scirrhi which are now become perceptible to the eye and touch of the operator. It would seem that this opinion of the author had been drawn from the appearances met with in the bodies of those who die in the aggravated state of ulcerated and open cancer, in which are found precisely, not only around the base of the cancerous sore, but even at a considerable distance from it, nodules, indurated absorbent glands, fasciculi of thickened, tense, compact, lymphatic vessels nearly fibrous, like processes from the principal hard tumor which forms the centre of them. But nothing of this sort is found on examining the surrounding parts of the recent benign scirrhus during its first stage, while it is moveable, and admits of complete separation from the surrounding parts, with as little care and dexterity on the part of the surgeon as in the turning out an encysted tumor; for the recent and benign scirrhus,

exempt from inflammation, forms no morbid adhesion with the surrounding parts, nor does it extend beyond the limits of the indurated gland *. Mr. Hunter † considered the scirrhus and cancer as diseases purely local, and was of opinion that “*If all the diseased part, or that which was so contiguous to it, as to have acquired a predisposition to disease, were removed, the patient would be as exempt from cancer in that part as if it had never occurred.*” This consummate anatomist and surgeon would have been more confirmed in his opinion of the nature of scirrhus and cancer, if he had had frequent occasion to extirpate the scirrhus during its first stage; opportunities of which occur to very few.

No person engaged in the profession can be unacquainted with the aphorism of Hippocrates, in which he thus expresses himself: “*Quibus occulti cancri fiunt, eos non curare melius est; curati enim cito pereunt.*” This passage of the father of medicine, in my opinion, does not merely refer to the inutility of the remedies for the cure of occult cancer, but applies also to the disadvantage of extirpation. And in this I am the more confirmed by the greater diffuseness with which Celsus has treated this subject, viz. “*Carcinomata curationibus irritan-*

* Appendix, NOTE (E). p. 60.

† Abernethy's *Surgical Works*, Vol. II. p. 90.

tur, et quo magis vis adhibita est, eo magis. Quidam usi sunt remediis adurentibus; quidam ferro adusserunt; quidam scalpello exciderunt, neque ulli unquam medicina profecit, sed adusta protinus concitata sunt et increverunt donec occiderent; excisa autem post inductam cicatricem tamen reverterunt et causam mortis adtulerunt; cum interim plerique, nullam vim adhibendo qua tollere id malum tentent, sed imponendo tantum lenia medicamenta, quæ quasi blandiantur, ad ultimam senectutem perveniant non prohibuerunt.”*

Whoever will confront this doctrine of Hippocrates and Celsus, with the results of his own experience, cannot but admit the inefficacy of extirpation in occult cancer, and even acknowledge the injury inflicted upon the patient by this operation. For though it sometimes happen that the cancer, when left to itself, advances slowly and with less virulence than usual, this is never found to be the case when the disease is reproduced, after the operation, in the part from which it had been extirpated. No surgeon, if he speaks ingenuously, but must confess that there is no operation in the whole range of surgery more unsuccessful than that of the excision of the occult cancer, more especially that of the breast, not from any thing imperfect and defective in the operation

* De Medicina. lib. 5. cap. 28.

itself, but because the persons affected by this disorder seldom submit to it while the scirrhus continues benign.

Among the ancient writers on surgery, there are none from the time of Hippocrates and Celsus, who have not been sensible of the truth of this, and have not, therefore, insisted in their writings, in clear and distinct terms, on the necessity of extirpating the scirrhus in its early stage, and on the inefficacy of this operation in the latter fatal period of it. Among the number of these it may be sufficient here to notice Ludovicus Mercatus, and M. A. Severinus, than whom none were more highly versed in the literature of the ancient masters of the art, and men also of great practical eminence. The first of these writers, observes, “*Verum si prædictis pharmacis duritiem emolliri non contingat, antequidem quam in cancrum degeneret, proficuum erit consilium chirurgica operatione scirrhosam duritiem radicitus amputare; quin imo (ut verum fatear) nullam aliam ex duris mammarum affectibus audacious licebit ferro extrahere, atque tutius quam scirrhosam*”*. The same precept is delivered by M. A. Severinus †. For after learnedly admonishing the young surgeon not to allow himself to be deceived by the appearances with

* De Mulierum Affectibus. lib. 1. p. 137.

† De Novis Observatis Abscess. p. 43.

respect to the non-existence of occult cancer, thus expresses himself: *Porro cum non hæreat, quamquam subjectæ carni concolor sit, venisque turgentibus septus non varicescat, cancerum quis nisi ineruditus non dixerit? Itaque cum hujusmodi tubercula mihi se offerunt, extrahenda statim propono, ne vitii mora negotium posthæc incurabile facescat.*

The practical writer among those of the moderns, who more than any other has known how to appreciate the highly useful doctrine of the ancients, and has confirmed it by his own experience, is Le Dran *, who, although apparently inclined to regard the scirrhus and cancer as diseases entirely local, yet says distinctly, *En ôtant la tumeur par l'operation avant que les ligueurs arrêtes s'alterant, on n'a plus à craindre cette metastase*, that is, the general infection, and the local reappearance of the cancerous ulcer. And in order to illustrate further his position, he adds: “if even one were disposed to admit that the cancer originated from a malignant germ generated in the general system, it would be invariably contrary to good practice not to extirpate the tumor nearly on its first appearance, because the morbid deposit made in it by the vital powers might prove a *perfect crisis* †.”

* Acad. R. de Chirurgie. Vol. III.

† Loc. cit. Que supposant même un levain cancéreux qui circule avec les liqueurs et qui fait enfin son dépôt sur une partie

But among the numerous authorities drawn from ancient and modern writers with regard to the timely recourse to manual operation as the only means of effecting a radical cure of the scirrhus and cancer, that which more fully confirms the utility of this doctrine is founded on the observations of Flajani, to whom it seems to have been reserved the advantage of operating upon a very considerable number of genuine scirrhi *within the first months from the appearance of the disease*. “Of twenty-seven operations performed by me,” he says, “*within the first months from the appearance of the scirrhus tumor, two patients only have suffered a relapse, and have been obliged to undergo the operation again; all the remaining twenty-five have been perfectly and radically cured* *.” This unusual success can only be attributed to the circumstance of this able surgeon having had the singular good fortune of operating *during the first months from*

après avoir circulé avec elle pendant quelque temps, comme le fait le levain veroliqué, qui souvent ne se développe et ne s'arrête sur une partie qu'au bout de nombre d'années, il est, contre la bonne pratique d'abandonner la tumeur bien décidée cancéreuse (*he might have said scirrhus in the first period*) à ses progrès non seulement parce que le dépôt du levain cancéreux qui circulait peut être critique et par fait étant arrêté dans une mamelle mais encore parce que la tumeur ne manquera pas de s'accroître et de faire périr le malade.

* Collezione di osserv. e. rifless. Vol. I. p. 277.

the appearance of the disease, in other words, during the first period of the scirrhus*.

If to so powerful a testimony as this my own experience can add any weight, I must ingenuously declare that I have been unsuccessful and disappointed in my expectations whenever I have extirpated the scirrhus, accompanied by unequivocal signs of the tumour having entered into the second stage. In the whole course of a long practice three cases only of extirpation of *genuine* scirrhus of the breast have had a prosperous result with me, these being the only three in which I was so fortunate as to perform the operation within the first months from the appearance of the disease, before the unpleasant sense of pruritus and heat had taken place, and consequently that of the lancinating pains. The operation, in all these instances, was performed by the removal of the whole mammary gland, although the scirrhus occupied scarcely two thirds of it; and in each of them, when the internal, altered

* Of the two cases in which the operation was repeated, one was that of struma, before mentioned, and the other must have been similar to it. All the other twenty-five were cases of genuine scirrhus which is far more frequent than the struma of the mammary gland. Nor is it to be supposed, considering the infrequency of this latter affection, that in the twenty-seven cases in which Flajani had performed the operation he had met with those of *struma* only and not of *scirrhus*.

texture of the indurated gland was examined attentively, I found the peculiar and distinctive characters of the legitimate scirrhus. I have effected a cure in a much greater proportion than this, in the excision of the legitimate scirrhus of the testicle ; a difference of success which I can attribute to no other cause than the more frequent opportunity of extirpating the scirrhus testicle during the first stage, than that of amputation of the scirrhus of the breast before it has advanced to the state of occult cancer. In two cases I have extirpated the malignant tubercle of the tongue ; in the one the cure was compleat and permanent, the darting pains not having yet commenced in it, and much less the appearance of fissures ; in the last case, as it was operated on during the period of degeneration, the cancerous sore returned more formidably than before. In one instance only have I been successful in the excision of the *encanthis* indurated by scirrhus of a malignant nature, but indolent, recent, and in the first period of it ; the other cases of this sort, from the operation having been performed during the second stage of the disease, had an unsuccessful termination. For the same reason the excision of the parotid and maxillary glands was unsuccessful in those cases which have come within my knowledge, in which the darting pains were unusually violent.

I feel myself warranted, nevertheless, to make an exception here as to the point respecting warts and hard malignant tubercles of the skin of the lips, of the sides of the nose and face, although maladies which have for a long time borne the device of *noli me tangere*. I have before intimated that these malignant tubercles of the external skin have seemed to me, as they did to Le Dran, of a less virulent nature than that of the glandular scirrhus, or even that of the malignant tubercles of the reflected skin. The truth of this assertion is, indeed, confirmed by experience ; for of the large number of tubercles of this sort, which I have extirpated some have been attended with success, in which not only the darting pains had commenced, but where even fissures were formed from which there was an occasional slight discharge of corrosive serum, using the precaution of re-uniting the wound and healing it by the first intention. The following case will serve better to illustrate this point of practical surgery.

Sig. Giambaltista Gelmini of Sacco, a Tyrolese, 74 years of age, but of a robust temperament, had had for four years upon the left cheek near to the ala of the nose, three warts of large base near to each other, and of which that in the middle equalled the size of a bean *.

* See Plate.

Towards the end of the fourth year, these hard malignant tubercles began to excite so intolerable a pruritus, that the patient could not refrain from frequently rubbing them. The larger of the three warts was not long after this period in becoming fissured, and discharging, at intervals, some drops of yellowish acrid, and sometimes bloodyish serum. This was in October 1801.

The verrucous mass extended from below the internal angle of the left eye, to the left commissure of the lips surrounding the left ala of the nose.

I had some doubt as to the possibility of extirpating the whole of this diseased mass, so as afterwards to be able to bring together the edges of the wound and retain them in perfect contact; but perceiving that between the left ala of the nostril and the malignant warts, there was a sufficient portion of sound skin, I conceived the hope of being able to include the entire diseased part between two triangular portions joining a common base, upon a line drawn transversely below the nose*, without being obliged to remove a portion of the cartilage of it.

Accordingly with a convex-edged bistoury, I began the incision a little below the angle of the internal angle of the left eye, and continuing it along the left side of the nose and around the left

* c, d.

ala of it, I stopped at the transverse line above mentioned*. In a similar manner, commencing from the superior point, I made a second incision, which diverging from the first outwardly, fell upon the same transverse line†. From these two incisions resulted the superior triangle‡. Having done this, with the scissors I made two cuts through the substance of the upper lip which were prolonged as far as the junction of the two preceding incisions with the already mentioned transverse line§. And in this manner I completed the inferior || triangle, having a common base with the superior.

The whole morbid mass being removed, the wound in which there was a remarkable loss of substance, assumed the *rhomboid* figure, the most favorable that could be obtained in this case for the union by *the first intention*. The inferior half of the *rhomb* was united by means of the twisted suture, as is performed in the operation for the hare-lip, and the other superior half of the wound was brought in contact by means of the interrupted suture, which it was necessary should pass through the cartilaginous substance of the left ala of the nostril, in order to have sufficient hold. The union of the whole wound represented a line which, with

* a, c.

§ b, c, b, d.

† a, d.

|| b, c, d.

‡ a, c, d.

little deviation, descended from below the internal angle of the left eye to the left commissure of the mouth.

The patient passed the night tranquilly. On the following day he had slight fever with unpleasant heat in the face, for which it was necessary to remove every kind of compress and bandage.

On the third day from the operation, the threads of the twisted suture were detached. The next day the pins were taken away, and at the same time the points of the interrupted suture divided. A little swelling of the left cheek continued, and the punctures left by the pins suppurated abundantly.

In the interim, the patient believing himself perfectly cured, held no measure in speaking and eating; which increased the swelling upon the cheek and augmented the suppuration of the punctures. At the line of junction of the wound also, there was a slight appearance of slough, with redness of the skin.

Absolute quiet, a rigorous diet, and fomentations of the aqua lith. comp. dissipated in a few days the swelling, and checked the suppuration of the punctures left by the pins. Shortly afterwards the sloughy border along the edge of the wound was detached, and some touches of the argent. nitr. were sufficient to complete the cure. The subject of this

account lived several years afterwards in good health, and without the most distant appearance of relapse.

APPENDIX.

NOTE (A). page 11.

THE term struma was originally applied to the enlargement of the thyroid gland, though now used in common acceptation with scrophula.

Cl. Sauvage Nosol. Metu. T. 11. P. I. p. 56.

NOTE (B). page 18.

The *septa*, or firm ligamentous like white bands in the substance of the scirrhus tumor, whether seated in the breast or in other parts of the body, appear to be considered by pathologists not only as a pathognomic character of this particular kind of tumor, but as if they were new products superadded to the original structure of the part by disease. Independently, however, of the circumstance of these bands being occasionally met with in other tumors as well as the scirrhus, and in some instances found wanting in the scirrhus tumor itself*, their appearance, at least when the disease is seated in the breast, in my opinion, admits of an explanation founded on the natural conformation of this organ.

If a section be made of the mammary gland in its natural state, and the divided portion subjected for a short time to ma-

* Observations on Cancer, by Sir E. Home, p. 31.

ceration, the glandular or secretory part of it, will be found to consist of a soft pulpy white substance not unlike in its appearance cotton-wool, portions of which in the form of processes are observed to dip between the masses of adipose membrane and to be attached to the skin. From every part of this soft pulpy substance the *tubuli lactiferi* are seen to arise in an arborescent form, the fibres of which as they advance towards the nipple, become larger and less numerous.

A similar though less distinct appearance is frequently observable in the condensed state of the gland by scirrhus, which in some measure resembles a cartilaginous substance intersected by white tendinous *bands*. But if instead of making a section of the scirrhus gland in the line of the axis of the nipple, as is usual, the tumor be divided transversely, so that the rami of the tubuli are cut across, instead of its surface being traversed by lines or septa as they are called, it will appear to be studded with a number of hard whitish points which correspond with the ramifications observed when the gland is divided in a contrary direction. In examining these points I have found them hard like particles of bone embedded in the substance of the tumor, and have more than once, particularly when placed under water, observed several of them to be hollow*.

From these observations I have, therefore, been led to conclude that the radiating or arborescent lines which are

* It must be admitted, however, that there is some diversity in the appearance of the mammary gland even in its natural state, for, in some instances, the divided part preserves its firm, smooth, equality of surface, like cartilage, although subjected to this process for a considerable time. In a very aged subject I have seen the tubuli distended, with a yellowish ropy fluid, an appearance, according to Bichat, peculiar to the state of pregnancy. Anat. Descrip. T. 5. p. 256.

met with in the scirrhus tumor of the breast, presenting the appearance of bands within its substance are merely vestiges of the excretory ducts of the gland condensed or obliterated in different degrees according to the more or less advanced state of the disease in the gland. And it appears to me probable, that if we were able to examine with greater minuteness, the morbid appearances sometimes met with in other parts of a more complicated texture, as the testes, &c. much of what is frequently ascribed to the effects of disease alone might be traced to the changes simply produced on their original organic structure.

NOTE (C). page 18.

Case of Sanguineous Tumor of the Breast.

1810, Oct. .—M. Allardice, a single woman, aged forty-five, a patient of the Public Dispensary, had a tumor in the left breast, extending from within a short distance of the nipple towards the axilla, which originated, as she stated, about eighteen months before, like a small moveable kernel under the skin, sometimes painful when the arm pressed upon it during sleep. Within the last three weeks a fluctuation had been perceptible in it, and it had been judged, by the late Mr. Crowther, to be of a cancerous nature.

30.—The tumor was punctured with the point of a lancet, and about four ounces of a dark and inodorous fluid was discharged from it in a jet, resembling in all respects, except the circumstance of its not coagulating spontaneously, venous blood, and on examination appeared to consist of the serum, with the colouring part of that fluid only.

On the third day following, the tumor was found to have filled again; a considerable quantity of bloody fluid having flowed from the orifice in the interim, some of which was effused into the cellular membrane, producing ecchymosis of the surrounding skin. The part felt hot and tense, and the pulse quick. From this time until the operation, a period of thirty-one days, the orifice burst open several times and discharged a large quantity of the same kind of fluid, the tension taken off by this means affording her relief from the pain occasioned by its pressure. The alarm that she felt at the repeated discharges of blood which took place at intervals, and which became more frequent and profuse, induced her to submit to the removal of the diseased part.

Dec. 4.—An elliptical incision was made through the integuments covering the tumor about four inches and a half in extent, and the whole of the indurated part dissected out, laying bare, by this means, a part of the pectoral muscle and the strong fascia covering the *serratus magnus*. Immediately below the edge of the former muscle, running in the same direction, and upon this fascia, a large *venous trunk* was exposed, which bled profusely. Struck with the unusual size of this vessel it was immediately considered to be the source from which the tumor had originated, as well as the hemorrhage which had taken place subsequently to the puncturing of it. A ligature was accordingly applied upon it, and the lips of the wound brought together in the usual manner.

Every thing seemed to go on well until the ninth day from the operation, when, to my great disappointment I found the patient complaining of unusual pain in the wound, from which there was a profuse discharge of a very highly

offensive bloody sanious fluid; and on removing the dressings, the lips, particularly towards the axilla, were found to be forced apart by an accumulation of grumous blood.

Notwithstanding these unfavourable appearances, from which I had apprehensions of the failure of the operation, the sanious bloody discharge which took place from it gradually diminished, and in the course of eight or nine days had entirely ceased. In about six weeks from the time of the operation the parts were perfectly healed.

This woman continued in an apparently good state of health for eight years afterwards without any appearance of relapse of the local complaint, and died of sudden illness in St. Bartholemew's Hospital in the autumn of 1818.

In the centre of the tumor, when examined, a cavity was found capable of holding three or four ounces of fluid, the inner surface of which presented a number of rugæ or irregular folds, not unlike those of the corrugated inner surface of the bladder or the auricles of the heart, forming small interstitial cells or foveolæ communicating with the principal cavity; the entire parieties of the cavity, which were about one third of an inch in thickness, as well as the small cells formed in the sides of it, were found to consist of depositions of successive layers * of coagulable lymph. A small portion of the glandular part of the breast had undergone some change in its texture, but had no communication with the cavity before mentioned, and probably arose from pressure made upon it in consequence of its contiguity with the principal diseased part.

* A tumor in the breast, in which there is a cavity similar to this, is preserved in the Museum of the College of Surgeons, but unfortunately without any accompanying history to explain it.

From this account it is evident that the disease originated in the *vascular* and not the *glandular* part of the breast; that the bloody fluid contained in the sac was derived in some manner or other from the enlarged *venous* trunk before mentioned, although the mode of communication cannot be demonstrated, no opening being found in the sac as far as I could discover similar to what is met with in aneurismal tumors or ruptures of the vein *. It is reasonable, also, to conclude that the obliteration of this vein by the operation put a stop to the further progress of the disease. The formation of the sac by layers of coagulable lymph, and the want of this property in the fluid contained within it, appear to admit of an easy explanation, upon the supposition of the extravasation and lodgment of blood for some time in the breast, and the consequent spontaneous separation of its constituent parts.

In all the leading circumstances, this case will be found to bear a strong resemblance to the histories of "Collections of Bloody Lymph in the Breast," recorded by Dr. *Monro* †, with which it ought to be compared as well as that related by *Richter* ‡, which, though in some respects different, appears in my opinion to have been of the same character.

NOTE (D.) page 34.

The disease both in the occult and open state of it, is subject to considerable variety in its progress.

* See the cases of this kind mentioned by *Mr. Else*. *Med. Observ. and Enquir.* Vol. III. p. 169.

† *Monro's Works*, p. 484.

‡ *Observ. Chirurg. Fasc.* 3. p. 46.

Several cases of ulcerated cancer of the breast are recorded by writers, and some have come within my own observation, in which the disease has continued stationary for years, in what might be called a dormant state, being attended with little or no pain or disturbance of the general health. These instances are most generally met with where the cancerous tumor makes its appearance at an advanced period of life, or after the age of sixty. The breast in these cases, although there may be some diversity in the appearances of it, is usually shrunk at the ulcerated part, below the surrounding induration, and adheres firmly to the side, covered by a dark brown incrustation, like the bark of a tree formed by the slow exudation of the fluid from the sore. An instance of this slow progress of the disease I have lately had an opportunity of seeing in a woman, aged seventy-four, which is the more remarkable on account of its affecting both breasts*. In the left breast the disease has existed five years, in the other three. The tumors, after bursting and discharging a bloody fluid mixed with matter, have ceased to be painful, and her general health is as good as usual. On the right side the opening has closed, the integuments are tucked in, and the veins upon it varicose; in the left an ulcer remains at the most depending part sufficient to admit the point of the finger, from which there is a sanious discharge. In consequence probably of the opening being formed in the integuments at a little distance from the principal seat of the disease, it has not assumed the cancerous ulceration. I have seen a cancer of the lip, at

* This circumstance of the cancer attacking the breasts in succession, though rare, is by no means a solitary instance. See Van Swieten, Comment. in aphor. Boerhaave, T. 1. p. 375. Richter, Observ. Chirurg. Fas. 3. p. 54.

the age of seventy-seven, which had existed for three or more years without having undergone any material change in its appearance or producing little or any pain or inconvenience.

Viewing the rapid course with which this disease sometimes proceeds in the early and middle stages of life, and the slow and inert state of the disorder under the circumstances I have now mentioned, it is conformable both to observation and to what we see in this respect of other complaints, to conclude that the circumstance of age has a material influence upon the character and progress of cancerous complaints.

The want of uniformity in the appearance and progress of cancer has been particularly noticed by my friend Mr. Pearson, in a work, which though written at an early period of life, displays much reading and scientific enquiry in which it will be seen that he has expressed some doubts, upon this ground, whether the histories recorded by Wiseman, of what he terms the *milder kind of cancers* ought to be admitted as genuine examples of that disease. From a conversation with that gentleman I am authorized to correct this opinion, and to state that upon more mature reflexion and experience he is disposed to think that such cases ought to be considered as instances of legitimate cancerous disease.

NOTE (E.) page 41.

In allusion to this work I would observe, that Professor Scarpa has rather expressed, what I apprehend appeared to him to be the sentiments, than the exact language of the

author. It is undoubtedly stated*, “that distant parts of the gland may become the seat of the morbid alteration about the same time, which may not advance with equal celerity, and elsewhere, and that small diseased substances are often met with at a distance from the principal seat of the disease, which were probably never observed before the operation.” But it is no where distinctly affirmed, nor does the author mean to imply that upon such ground the operation ought to be deferred until all the diseased parts have developed themselves and become obvious to the sense. The conclusion he would draw from such facts is, that where the disease has continued for some time stationary, there is necessarily a greater probability of all the morbidly affected parts being removed by the operation, and consequently a comparatively greater security against a relapse, than where it is performed in a more recent state of the disease, and the altered parts, from their minuteness, likely to escape observation; an observation supported by the authority of Mr. Sharp†, who remarks that *when a scirrhus has admitted of a long delay before the operation, the patient seems to have a better prospect of cure without danger of a relapse than when it has increased very fast and with acute pain.*

* P. 32, et seq.

† Operations of Surgery, p. 131.

MEDICAL WORKS

PRINTED FOR

T. CADELL, IN THE STRAND.

1. A TREATISE on the Principal DISEASES of the EYES, illustrated with CASES. By ANTONIO SCARPA, Emeritus Professor, and Director of the Faculty of Medicine in the Royal Imperial University of Pavia. Translated from the Italian, with Notes. By J. BRIGGS, Surgeon to the Public Dispensary. The Second Edition, considerably altered and enlarged, with Engravings, in one large vol. 8vo. price 14s. in boards.

2. MEMOIR on the CUTTING GORGET of HAWKINS; containing an Account of an Improvement on that Instrument, and Remarks on the Lateral Operation for the Stone. By the same, also translated by Mr. BRIGGS. 8vo. price 2s. 6d.

3. PRACTICAL OBSERVATIONS in SURGERY, illustrated by CASES. By WILLIAM HEY, F.R.S. Senior Surgeon of the General Infirmary at Leeds. The Third Edition, in one large vol. 8vo. price 14s. in boards.

4. The MISCELLANEOUS WORKS of the late ROBERT WILLAN, M.D. F.R.S. F.A.S.; containing an Inquiry into the Antiquity of the Small Pox, Measles, and Scarlet Fever. Now first published. REPORTS of DISEASES in LONDON: a New Edition: and DETACHED PIECES on MEDICAL SUBJECTS, collected from various Periodical Publications. Edited by ASHBY SMITH, M.D. &c. 8vo. 12s. in boards.

5. PRACTICAL OBSERVATIONS on the FORMATION of an ARTIFICIAL PUPIL in several deranged States of the EYE; to which are annexed, Remarks on the Extraction of soft Cataracts, and those of the membranous kind, through a puncture in the Cornea, illustrated by Plates. By BENJAMIN GIBSON, Vice President of the Literary and Philosophical Society of Manchester, and Surgeon to the Manchester Infirmary. Price 5s. in boards.

6. MEDICAL HISTORIES and REFLECTIONS. By JOHN FERRIAR, M.D. Senior Physician to the Manchester Infirmary, Dispensary, Lunatic Hospital, and Asylum. The Second Edition, corrected and much enlarged, in 4 vols. 8vo. price 1l. 9s. in boards.

7. A CLINICAL HISTORY of the ACUTE RHEUMATISM, or RHEUMATIC FEVER; with a Correspondence on the beneficial Effects of the Peruvian Bark, Cinchona, in the Acute Rheumatism. To which is added, a Clinical History of the Nodosity of the Joints. By JOHN HAYGARTH, M.D. F.R.S. A new Edition, with Corrections and Additions, 8vo. price 6s. in boards.

8. REPORT of OBSERVATIONS made in the BRITISH MILITARY HOSPITALS in BELGIUM, after the BATTLE of WATERLOO; with some Remarks upon AMPUTATION. By JOHN THOMSON, M.D. F.R.S. Ed. Consulting Physician to the Edinburgh New Town Dispensary, Professor of Surgery to the Royal College of Surgeons, Professor of Military Surgery in the University of Edinburgh, and Surgeon to the Forces. 8vo. price 8s. in boards.

9. AN ESSAY on the DISEASE called YELLOW FEVER, with Observations concerning Febrile and Contagion, Typhus Fever, Dysentery, and the Plague; partly delivered at the Gulstonian Lectures, before the College of Physicians, in the Years 1806 and 1807. By EDWARD NATHANIEL BANCROFT, M.D. 8vo. price 1*l.* 1*s.* in boards.

10. A SYSTEM of HUMAN ANATOMY. By JOHN GORDON, M.D. F.R.S. Ed. Lecturer on Anatomy and Surgery, and on the Institutions of Medicine; Member of the Royal College of Surgeons of Edinburgh; and one of the Surgeons to the Royal Infirmary, &c. Vol. I. price 9*s.* in boards.

11. A TREATISE on INSANITY, in which are contained the Principles of a new and more Practical Nosology of Maniacal Disorders than has yet been offered to the Public, exemplified by numerous and accurate Historical Relations of Cases from the Author's public and private Practice; with Plates, illustrative of the Craniology of Maniacs and Idiots. By PH. PINEL, late Physician to the Asylum de Bicêtre, at Paris. Translated from the French, by D. D. DAVIS, M.D. Physician to the Sheffield General Infirmary. 8vo. price 9*s.* in boards.

12. An INQUIRY into the NATURE and ORIGIN of MENTAL DERANGEMENT, comprehending a concise System of the Physiology and Pathology of the Human Mind, and a History of the Passions and their Effects. By ALEXANDER CRICHTON, M.D. In two vols. 8vo. price 16*s.* in boards.

13. DOMESTIC MEDICINE; or, a Treatise on the Prevention and Cure of Diseases, by Regimen and simple Medicines; with Observations concerning Sea-bathing, and on the Use of the Mineral Waters. To which is annexed, a Dispensatory for the Use of private Practitioners. By WILLIAM BUCHAN, M.D. Fellow of the Royal College of Physicians, Edinburgh.

* * Besides all the Author's latest Corrections and Improvements, the present Edition contains many new Articles, as the Treatment of the Mumps, of St. Vitus's Dance, Means of preventing Pulmonary Consumptions, &c. By his Son, ALEX. R. P. BUCHAN, M.D. of the Royal College of Physicians, London, and Senior Physician to the Westminster Hospital. The Twenty-first Edition, with considerable Improvements and Additions, in one large volume 8vo. price 12*s.* in boards.

14. ADVICE to MOTHERS, on the Subject of their own Health, and on the Means of promoting the Health, Strength, and Beauty of their Offspring. By the same. Second Edition. One vol. 8vo. 9*s.* boards.

15. The MODERN PRACTICE of PHYSIC, exhibiting the Characters, Causes, Symptoms, Prognostics, Morbid Appearances, and improved Method of Treating the Diseases of Children. By ROBERT THOMAS, M.D. Seventh Edition, revised and considerably enlarged, 8vo. price 18*s.* boards.

THE END.